

REMARKS

Claims 1-44 are presently pending in the application. No claims have been added, amended, or cancelled in this response. In the Office Action mailed September 14, 2004, claims 1-34 were indicated to be allowable and claims 35-44 were rejected. More specifically, the status of the application is as follows:

(A) The drawings were objected to under 37 C.F.R. § 1.83(a); and

(B) Claims 35-44 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that the applicant regards as the invention.

(A) Objection to the Drawings

The drawings were objected to under Rule 1.83(a) as failing to show and label an electrical system having a first and a second contact and a contact region (as recited in claims 4, 9, 14, 21, 26, and 31), and an electrical system having a first and a second contact and an electrical conductor (as recited in claims 5, 10, 15, 22, 27, and 32).

Rule 1.83(a) provides as follows:

The drawing in a nonprovisional application must show every feature of the invention specified in the claims. However, conventional features disclosed in the description and claims, where their detailed illustration is not essential for a proper understanding of the invention, should be illustrated in the drawing in the form of a graphical drawing symbol or a labeled representation (e.g., a labeled rectangular box)."

Generally, any structural detail that is of sufficient importance to be described should be shown in the drawings. This requirement, however, does not apply to minor variations of the invention described in the specification, nor to well-known and conventional parts or apparatuses. (MPEP § 608.02(f); emphasis added.)

The applicants respectfully submit that the present objection to the drawings under Rule 1.83(a) is based on a misunderstanding of the specification and drawings because sufficient support for every feature of the invention specified in the claims is set forth in the application. Further, any "minor variations" and/or "well-known and

conventional parts" are sufficiently described in the specification. The text of the originally filed specification states that "[t]he sensor assembly 330 also includes a detector 340 that can be an optical system, an electrical system, or a mechanical system." (Specification, 13:12-13.) Figure 3, for example, illustrates an embodiment of the detector 340 that is an optical system including an emitter 342 and a receiver 344.

The originally filed specification further teaches that the sensor assembly 330 shown in Figures 5A and 5B or the embodiment shown in Figure 6 can include an electrical system or other types of mechanical sensors. The specification describes in detail a detector including contacts for an electrical system that is opened or closed according to the position of the pin 332. More specifically, the specification teaches that:

The contacts for the electrical circuit can be located at the emitter and receiver sites. The pin 332 can accordingly include a conductive portion at the second end 336 for the embodiments shown in Figures 5A and 5B, or a conductive section at the location of the window of 337 in the embodiment shown in Figure 6. The conductive portion of the pin can be configured to engage the contact sites when the pin is driven downward by a workpiece. Therefore, it will be appreciated that other embodiments of sensor assemblies can be used in conjunction with passive edge-grip end-effectors in accordance with other embodiments of the invention.

(Specification, 15:17-24.) Therefore, the illustration of the electrical systems recited in claims 4, 5, 9, 10, 14, 15, 21, 22, 26, 27, 31, and 32 is not essential for a proper understanding of the invention because "minor variations" and/or "well-known and conventional parts" of different embodiments of the detector 340 are described in the specification. Accordingly, because the present objection to the drawings under Rule 1.83(a) should be withdrawn.

(B) Response to the Section 112 Rejection of Claims 35-44

Claims 35-44 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that the applicant regards as the invention. More specifically, the Examiner states that the claims in question recite that the workpiece is "suspended." However, the Examiner

asserts that “the workpiece is not suspended but supported. Thus, instead of suspend the claims should set forth support.” (Office Action, paragraph 3.)

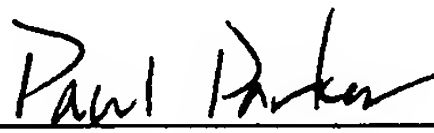
The applicants also submit that the rejection of claims 35-44 under Section 112, second paragraph, is based on a further misunderstanding of the specification, and thus this rejection is not proper. Claim 35 recites a method of handling a workpiece having a perimeter edge circumscribing a first diameter. The method includes “supporting a perimeter edge of the workpiece to suspend the workpiece in a plane without exerting a force against the workpiece in a direction parallel to the plane.” The originally filed specification states that a plurality of retainers 320 each include an inclined surface 322, with “[t]he inclined surfaces 322 . . . support[ing] an edge of the workpiece such that the workpiece is held in a workpiece plane spaced apart from the body 310.” (Specification, 12:20-24.) Thus, contrary to the Examiner’s suggestion the claims set forth a method of “supporting” a perimeter edge of the workpiece. In this way, the workpiece is “suspended” at the desired location without unnecessary force being exerted on the workpiece. For example, the specification further teaches that by spacing the workpiece apart from the paddle or fork portion of the end-effector, the passive end-effectors “eliminate several moving parts and reduce sites where contaminants can collect compared to end-effectors that include active elements [such as plungers or pistons that exert a force against the workpiece to drive it laterally in a direction parallel to the plane of the workpiece.]” (Specification, 11:20-23.) Accordingly, the Section 112 rejection of claims 35-44 should be withdrawn.

Conclusion

In view of the foregoing, the pending claims comply with 35 U.S.C. § 112 and are patentable over the applied art. The applicant respectfully requests reconsideration of the application and a mailing of a Notice of Allowance. If the Examiner has any questions or believes a telephone conference would expedite prosecution of this application, the Examiner is encouraged to call the undersigned at (206) 359-3982.

Respectfully submitted,
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